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People and Forests

R.E. Davies

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Petawawa National Forestry Institute

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People and Forests

The Forestry Interpretation Program
at the
Petawawa National Forestry Institute

Information Report PI-X-33

R.E. Davies

Petawawa National Forestry Institute
Canadian Forestry Service
Agriculture Canada
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Abstract

The Public Awareness Project at the Petawawa National Forestry Institute began in the early 1970s to meet a concern about the general public's lack of sound forestry knowledge with regard to natural resource management issues. The past decade has seen a steady development and maturing of two main programs directed at the vacationing public and the local education system. The philosophies and operations of the Forest Visitor Centre and the Petawawa Resource Education Program are presented through text, colour photographs, and illustrations.

Résumé

Le Programme de sensibilisation du public à l'Institut forestier national de Petawawa a vu le jour au début des années 70. Le peu de connaissances du grand public sur le domaine forestier ainsi que sur les problèmes que pose la gestion des ressources naturelles était une préoccupation pour l'Institut. La dernière décennie a été témoin du développement continu et du mûrissement de deux principaux programmes, l'un visant les vacanciers, l'autre la formation des jeunes du milieu. Ces pages, agrémentées de photos en couleur et d'illustrations, vous présentent la philosophie et les activités du Centre d'accueil forestier ainsi que celles du Programme d'initiation aux ressources de Petawawa.

Acknowledgments

I would like to thank my colleagues within the Public Awareness Project at the Petawawa National Forestry Institute for their opinions and helpful advice throughout the production of this report: especially D. Stewart, Head of the Public Awareness Project, C. McKenna, and J. Williams. For their kindness in checking the translated text, I wish to express my thanks to J.J. Legris, B. Ballantyne, and C. Fogal. Finally, a special expression of thanks to N. Vokes, whose skillful talent with pen and inks has lent an interpretive creativity to the pages of this report.

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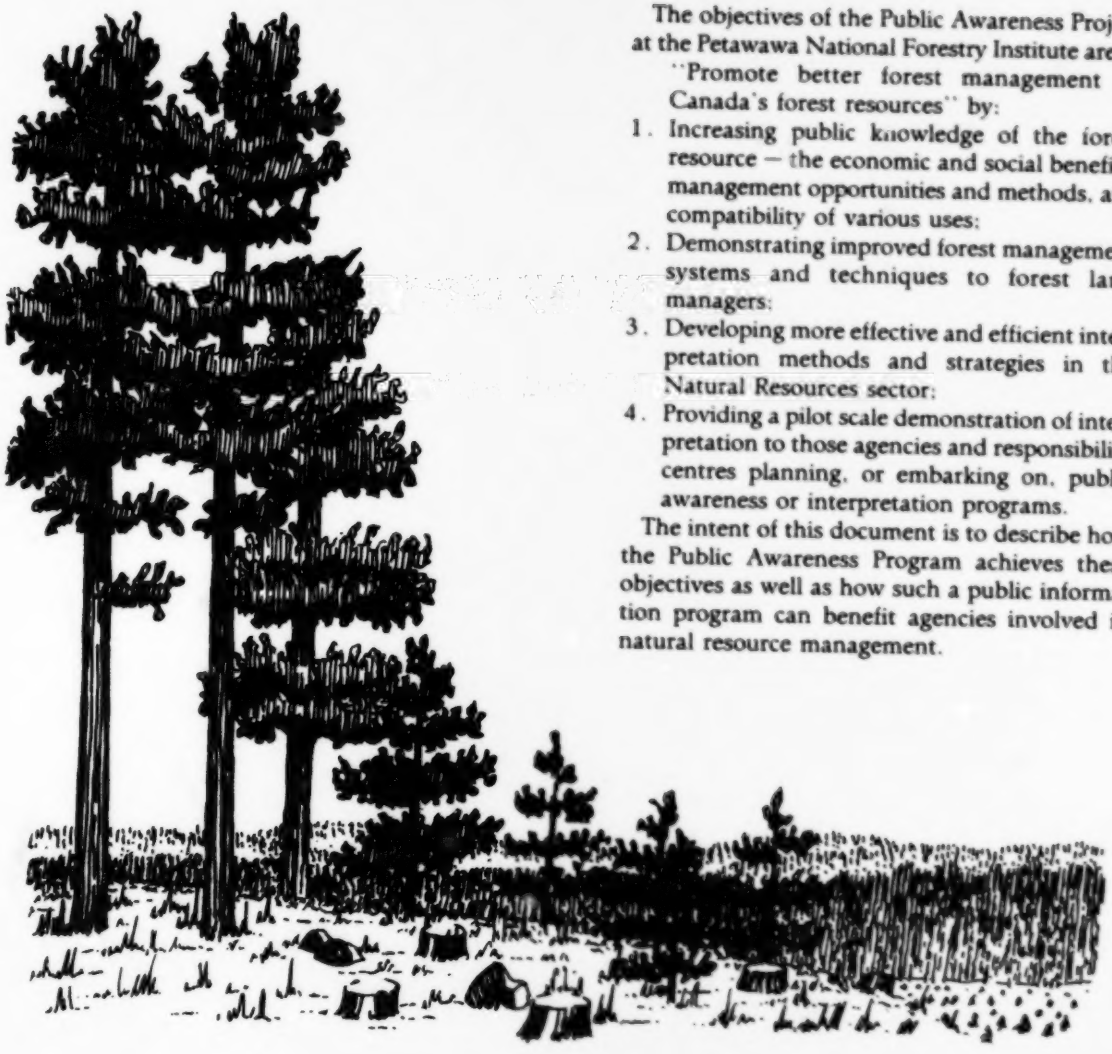
Our forest resource belongs to our children. If they understand it today, they will use it wisely tomorrow.

Objectives



The objectives of the Public Awareness Project at the Petawawa National Forestry Institute are to "Promote better forest management of Canada's forest resources" by:

1. Increasing public knowledge of the forest resource – the economic and social benefits, management opportunities and methods, and compatibility of various uses;
2. Demonstrating improved forest management systems and techniques to forest land managers;
3. Developing more effective and efficient interpretation methods and strategies in the Natural Resources sector;
4. Providing a pilot scale demonstration of interpretation to those agencies and responsibility centres planning, or embarking on, public awareness or interpretation programs.

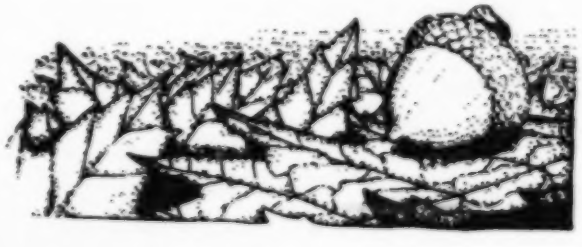
The intent of this document is to describe how the Public Awareness Program achieves these objectives as well as how such a public information program can benefit agencies involved in natural resource management.

Introduction

In the late sixties, North American society began to take great interest in the environment. Increases in population, income, and leisure time, as well as better transportation contributed to an increase in the number of people using forest areas for recreation and vacations. Increased demand on forest resources soon led to conflicts between *new* and *traditional* users of the forest; conflicts which have often continued to date. As well, many public groups began to raise concerns over pollution and environmental quality. High profile environmental campaigns were directed at industry and resource management agencies alike. Many of these conflicts and campaigns arose from misunderstandings and biased opinions spawned by a lack of sound forestry knowledge.

In 1972, the Petawawa National Forestry Institute (formerly the Petawawa Forest Experiment Station) was motivated by the philosophy that people who are accurately informed about forest ecology and the benefits of proper forest management would be better equipped to react intelligently to issues concerning resource use and management. Such people would be able to provide informed balanced participation in the decision-making process and would be more supportive of proper resource management decisions.

To foster this awareness in present, and future, generations the Institute developed two programs. The Forest Visitor Centre is designed to heighten the general public's knowledge through a professionally presented interpretation program that uses a variety of media and techniques to present the message. The Petawawa Resource Education Program reflects the principle that a child who experiences the forest environment as an integral part of his/her learning experience will grow to respect the forest, and be concerned as well as informed when faced with natural resource management issues. The Institute's resources have provided an excellent base for these programs, including a diversity of forest types, a wide range of forest research and management experiments, a good road system for easy woodland access, and a location on the Trans-Canada Highway.



Forest Visitor Centre

Purpose

The Forest Visitor Centre has been developed as a model interpretation program/operation designed to reach the general public. The program has two main objectives:

1. To increase the public's awareness and understanding of forest ecology and forest management in Canada.

2. To develop, evaluate and promote interpretive media that can be effectively applied by other interested agencies concerned with the promotion of proper natural resource management and environmental stewardship.

Exploring the forest first-hand in a family atmosphere is the best way to enjoy the Centre.

Program design is based on several principles, among them:

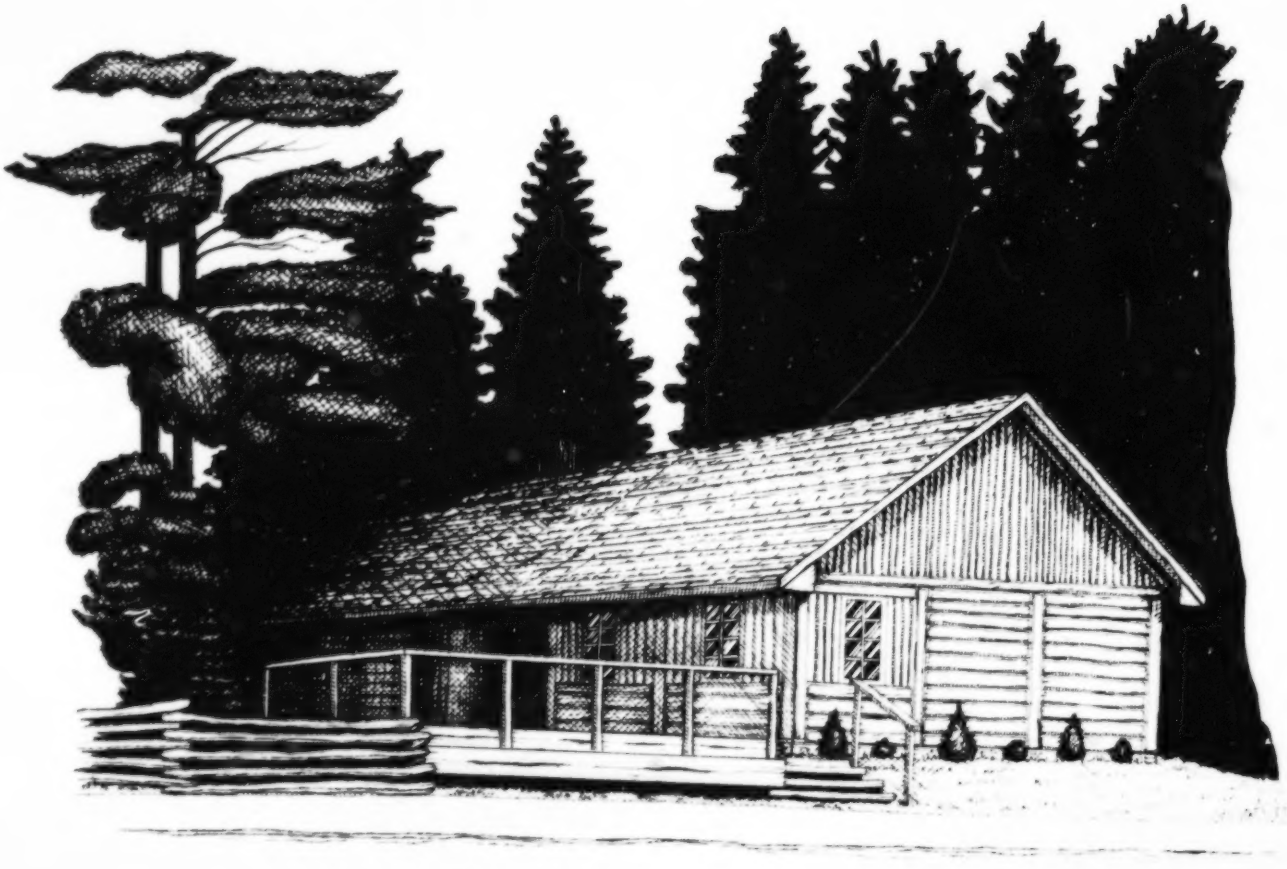
(a) the need to familiarize the public with the forest environment and increase their understanding of its components and processes;

(b) to provide the public with a variety of interpretive facilities which will expose them to a multitude of forest management techniques and their applications;

(c) to promote public awareness of the economic and social benefits provided by the forest and the forestry sector as well as the compatibility of various uses within the forest;

(d) to examine and develop various interpretive media and techniques useful to natural resource agencies involved in, or planning to enter, interpretation or public awareness programs.

(e) to evaluate the impact and effectiveness of interpretive media, program and facilities on various target audiences.



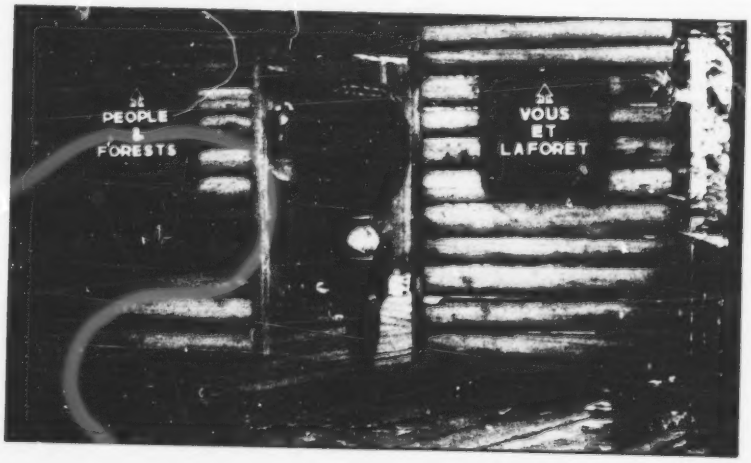
Audience

The general public, at which the Forest Visitor Centre program is directed, is characterized by a wide range of interest, knowledge, and physical capability. On the average, visitors are not knowledgeable about the forest and its ecology. They also tend to have a lack of understanding regarding forest management, its purpose, and potential for improving the condition of the forest. Very few have any familiarity with forest research or how it applies to forestry practice.

Unless special interests have motivated the visitor to explore the forest on his/her own time, the average citizen, especially the city dweller, is not prepared for travel in the forest. Probably the most notable inadequacies include lack of proper footwear, inappropriate clothing, and no insect repellent. The general public visiting the Institute are often travellers with little time to spend and, therefore, programs for them require flexibility and spontaneity.

Local visitors can be included as general public but they exhibit different traits as a group. Many consider the facilities to be a local attraction; both for their own enjoyment as well as a place to bring visiting friends and relatives. Their proximity to the Institute provides the opportunity for repeat visits throughout the year. Hence, there is a need for change in the programs provided by the project. Repeated contact should increase the level of awareness and understanding by the local population of forestry and forest management. Greater interest in forestry as well as in the Institute and its programs should also be evident.

The Forest Visitor Centre is a fascinating stop for young and old alike.



Activities

Dealing as it does with a very mobile audience at the Centre on their own leisure time, the programs and activities of the Centre are, for the most part, self-guiding in nature. The visitor, therefore, is free to spend as much time as he/she would like at the Centre. Apart from physical activities such as walking, driving, fishing, canoeing, picnicking, etc., the program offers several interpretive activities.

Some activities are just for fun.

In the reception area a number of forestry equipment demonstrations are offered by the attendants. A small theatre is available for viewing forestry related audio-visual programs at the convenience of the visitor. Adjacent to the deck area, the outdoor exhibit loop contains a number of displays designed to acquaint the visitor with a general overview of forest ecology and forest management. Exhibit themes include: the tree, its structure and function; the forests of Canada and their composition; the benefits and products derived from the forest resource; and, the importance of forestry and forest management in Canada. For those who have the time to take a leisurely stroll, the Centre offers two self-guided trails of less than one kilometer in length. The forest trail winds its way through two very different forest sites. Along the path, trail signs interpret various aspects of forest ecology and man's relationship with the resource. A portable cassette-tape recorder provides interpretive commentary for the visitor on the water trail. The topic of interest along this boardwalk, next to the Chalk River, is the relationship between water and forests and how this affects the lives of animals, plants and man. Following a similar technique, the road tour offers the visitor an opportunity to travel an eight kilometer route over Institute roads in the comfort of his/her own vehicle. A portable cassette player is provided and the self-guiding message interprets various aspects of forest management and research at a number of designated stopping points.

Canadians need to become more aware of their country's forest resources.

A section of floating boardwalk on the Water Trail affords visitors a unique view of the Chalk River.

In the comfort of their own vehicles, visitors explore demonstration forests on the self-guided Road Tour.

Surfacing a trail with woodchips adds comfort and provides an unobtrusive method of trail marking.

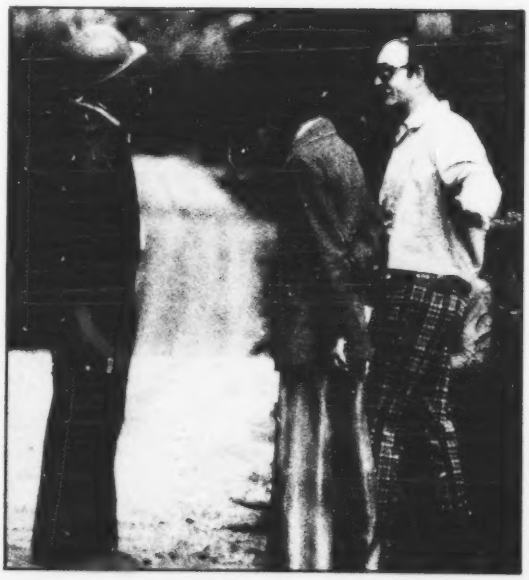
Plant identification plaques include illustrations to help the visitor recognize common trailside species.

Participant involvement is a key element of exhibit design.

On the Forest Trail, a winding boardwalk adds comfort to a stroll through a low-lying woodland site.

Using real forestry equipment heightens interest and understanding for the participant.

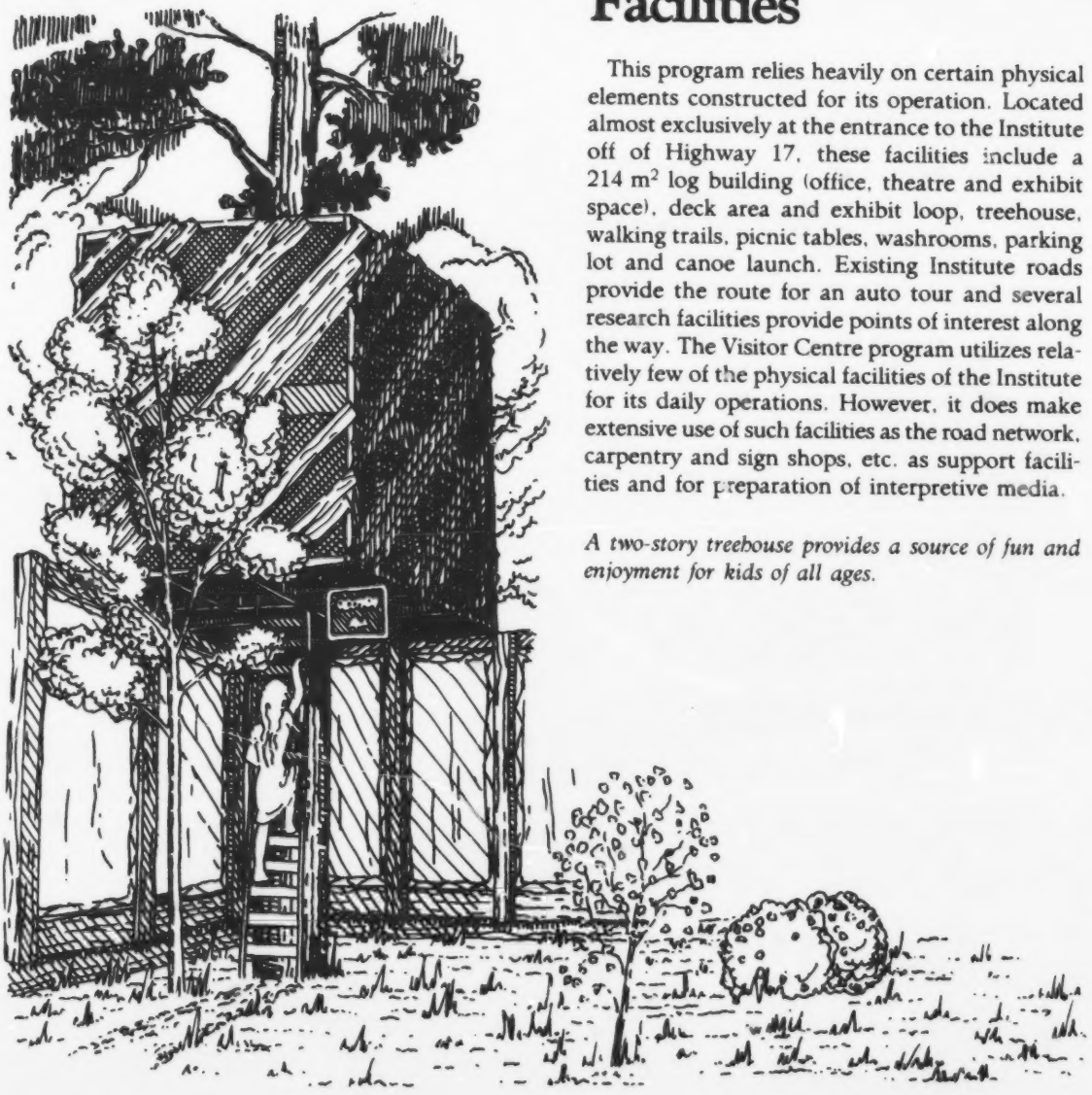
In recent years, several special activities have been added to the Visitor Centre program to stimulate local interest in the Institute and support for its programs. Guided walks and demonstrations on a variety of forestry related topics have been held on Sunday afternoons as a regular feature of the Centre's operation. An annual press tour has been created as an opportunity for local media to report on new Visitor Centre programs and improvements. In conjunction with the other projects at the Institute, the Visitor Centre has participated in an open house during mid-September. First organized in 1978 when the former Experiment Station was to be closed, the open house was successful in attracting public attention to its plight and support for its survival. This event has proved popular and, although not held annually, provides an excellent opportunity for interaction between professional staff and the lay public as well as the promotion of community involvement.



Visitors come in direct contact with Institute staff at open house activities.

Facilities

This program relies heavily on certain physical elements constructed for its operation. Located almost exclusively at the entrance to the Institute off of Highway 17, these facilities include a 214 m^2 log building (office, theatre and exhibit space), deck area and exhibit loop, treehouse, walking trails, picnic tables, washrooms, parking lot and canoe launch. Existing Institute roads provide the route for an auto tour and several research facilities provide points of interest along the way. The Visitor Centre program utilizes relatively few of the physical facilities of the Institute for its daily operations. However, it does make extensive use of such facilities as the road network, carpentry and sign shops, etc. as support facilities and for preparation of interpretive media.



A two-story treehouse provides a source of fun and enjoyment for kids of all ages.

Operations

The Forest Visitor Centre has operated on a daily basis during the months of June through September since 1973. Opening usually occurs in early June with final closing scheduled for mid-September. The operating season is flexible depending upon pre-season preparations, summer attendance, and public interest in the programs.

Pre-season operations involve exhibit and media preparation, publication inventory, and program promotion as well as seasonal staff selection. As the visitor season approaches, temporary staff are hired and an orientation period begins. The period lasts two to three weeks and includes familiarization with the local region, its facilities, attractions, and characteristics; the facilities and programs of the Institute; and, the operational and maintenance procedures connected with the Visitor Centre. Training may also involve visits to local or regional interpretive sites and/or forestry operations, depending on the education and experience of summer staff. Additional sessions are sometimes used to improve interpretation and/or communication skills or to heighten the level of forestry knowledge in order to better serve the public's needs.

Staff assist visitors in choosing activities suited to their needs.

Seasonal staff includes one supervisor and four other members. Of these, two are required to be bilingual. Working from a pre-arranged, yet flexible, schedule, the staff operate the visitor centre from 9:30 a.m. to 6:00 p.m., seven days a week. Two people operate the program through the week, with three handling operations during the weekends in July and August. The schedule designates the days staff will work at the visitor centre with each member responsible for filling in the remaining time with *off-duty* projects or time off as appropriate. Rarely are staff members assigned long periods of consecutive duty at the centre. This system has proved helpful in maintaining staff interest in the Visitor Centre as well as avoiding staff *burnout* by allowing time for an extended *holiday* during the summer.

A friendly, courteous staff is on hand at the reception area to answer all kinds of questions.

On duty staff are required to wear a uniform provided by the Institute. These have taken several designs in the past but basically consist of long-sleeved cotton shirt or blouse with casual corduroy pants. Choice of uniforms has considered many factors including: range of weather over the season (cold and damp or hot and humid), biting insects, durability, attractiveness and distinctiveness. Their unisexual nature and the addition of Canadian Forestry Service shoulder flashes have helped set apart the staff for identification by the visiting public.

General responsibilities of the attendants comprise the welcoming of visitors, demonstration and explanation of forestry equipment, display and distribution of literature and interpretive material (e.g. cassette tapes, etc.), provision of information, and the assurance that the public has an enjoyable learning experience at the centre. Other duties include general maintenance and light repair work as well as conducting surveys regarding visitor numbers, preferences, and opinions.

A daily check is made by staff to ensure all facilities are in proper working order.

Promotion of the Visitor Centre and its programs is an important concern for the supervisor. In conjunction with the Head of the Public Awareness Project the supervisor is responsible for advertisements in tourist information material, press releases concerning dates and times of operation as well as guided walk programs and special events, and the coordination of promotional events such as press tours and V.I.P. visits. Promotion has also included good public relations with other government agencies and commercial operations and attractions within the local area. To this end, informational material is exchanged and displayed with a wide variety of agencies including campgrounds, parks, industry, museums, provincial governments, other federal departments, etc. A good rapport with local people and the travelling public provides for a considerable amount of promotion through lasting impressions and by word-of-mouth. Courteous and helpful staff, convenient and clean facilities, interesting programs and attractive displays, as well as a few promotional handouts (e.g. post cards, pencils, bumper stickers, etc.) all combine to improve the image of the Institute and the visitor centre program as well as increase the level of awareness and understanding of forests, forestry, and forest management among the people of Canada.

Surveys and demographic information have helped plan better programs and facilities for the public.

Attendance

The Visitor Centre has enjoyed successful attendance over the past eleven years of operation with a total of 101 452 visits. If the first year of operation (1973) is discounted (due to the fact that the centre was opened only half way through that season: late July) the average yearly visitation is 9 739 people. Attendance has surpassed ten thousand during several seasons.

Weather plays a significant role in attendance fluctuations. Summers with poor weather conditions tend to have lower attendance figures and good weather late in the season seems to draw people away from the centre: perhaps to soak up those last few precious rays before the chill autumn winds come to the valley. Although gasoline prices have generally adversely affected long-distance travel, the low value of the Canadian dollar has encouraged visits from foreigners. Weather and economics aside, the promotion of the program, including the visibility and appearance of the centre from the highway, plays an important role in the attendance rate.

Observations over the past few years indicate that the majority of visitors (about 65 percent) are from Ontario, with a good deal of support from the local communities. Quebec, the rest of Canada, and the U.S. each account for close to ten percent with overseas visitors making up most of the difference. The local population considers the Centre as one of its local attractions to which they bring their visiting friends and relatives. Another statistic is that 10.6 percent of the visiting public used French as their primary language.

The guest book is an invitation for comments and helpful suggestions.

ATTENDANCE FIGURES FOR FOREST VISITOR CENTRE 1973–1983

YEAR	TOTAL ATTENDANCE	DAYS OF OPERATION	AVERAGE ATTENDANCE PER DAY*
1973	4 066	55	74
1974	7 718	114	68
1975	10 199	99	103
1976	10 582	107	99
1977	8 274	95	87
1978	9 828	109	90
1979	10 675	100	107
1980	9 864	101	98
1981	10 670	112	95
1982	10 864	99	110
1983	8 712	99	88

* figure rounded to nearest whole number

Total attendance 1973–83: 101 452
Total attendance 1974–83: 97 386
Average seasonal attendance 1974–83: 9 739*

Petawawa Resource Education Program

Purpose

The Petawawa Resource Education Program (PREP) was developed to instill the need for forest resource management in school age children through first hand involvement with the resource. The program has two objectives:

1. To develop, within the student, an understanding of the forest resource and its management.
2. To ensure that the participants become at ease with the forest environment.

The program has several guiding principles. We must

(a) Make the forest environment part of the student's regular learning environment.

(b) Use the forest as a source of lesson material.

(c) Encourage the student to learn through first-hand involvement with the subject material.

(d) Encourage the teacher to conduct the learning exercise and, thus, use the Institute staff member primarily as a resource person.

Towering forests provide an ideal learning environment.

Audience

From kindergarten to university, all students exhibit two constant characteristics: they're always hungry and they're forever active. Their range of knowledge is extremely wide, even within the same grade level. They are generally more interested than the public-at-large and appear to have a relatively higher level of motivation, probably due to greater curiosity and fewer inhibitions. Students vary widely in their ability to pay attention. Younger children tend to have short attention spans while the older pupil, in high school and beyond, often has a longer attention span than the average tourist. Visiting schoolchildren are usually from the local area and spend half a day or longer at the Institute. The classes arrive with specific expectations so programs are definite and structured with respect to content. Most students are amiable to travel in the woods even during the colder season.

Each attending class holds a wide range of knowledge and skills.

Activities

The major portion of the education program is run in conjunction with the Renfrew County Board of Education (RCBE). The program is based on curriculum units which were developed by RCBE consultants and teachers. For each of grades one through ten (except grade eight) there are two curriculum units: a *cold weather* unit and a *warm weather* unit.

All classes under RCBE jurisdiction are encouraged to attend. Both pre-visit and post-visit exercises are done in the classroom to increase the impact of the learning experience. Special slide sets and unit workbooks are available to each teacher involved in the program. School classes usually arrive in mid-morning and spend time before and after lunch on their particular unit of study.

The education program is also used by non-RCBE classes, from kindergarten through to post-secondary. Specially designed activities for individual classes are occasionally developed through consultation between Institute staff and the teacher(s) involved. In such cases the activities are designed with the class curriculum in mind, as well as the principles of the education program.

Children are captivated by real forest management activities.

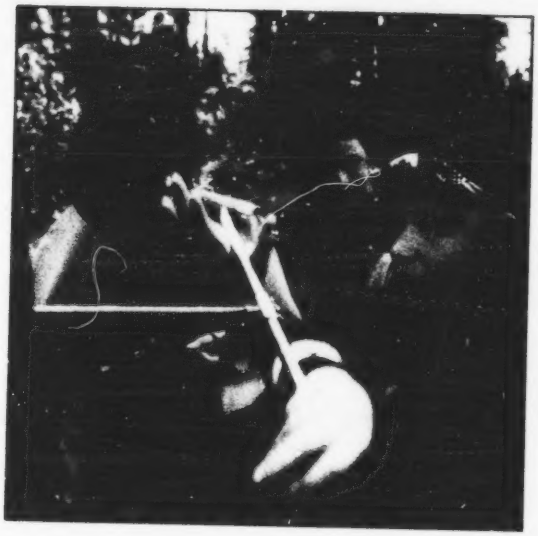
RENFREW COUNTY BOARD OF EDUCATION
CURRICULUM UNITS (w-warm weather, c-cold weather)

Grade 1.	Beaver Pond Visit (w)
	Winter Woods Walk (c)
	Sugar Bush Visit (c)
Grade 2.	Tree Seed (w)
	Fire Equipment Demonstration/ Talk with Forester (c)
Grade 3.	Sawmilling (w)
	Logging (c)
Grade 4.	Tree Ring Studies (w)
	Snowshoe Walk (c)
Grade 5.	Tree Identification - summer conditions (w)
	Tree Identification - winter conditions (c)
Grade 6.	Life Cycle of Trees (w)
	The Weather Station (c)
Grade 7.	Microclimate (w)
	Snow Studies (c)
Grade 8.	Pond Studies (w)
Grade 9.	Field Studies: White Pine Weevil (w)
	Field Studies: Plantation Spacing (c)
Grade 10.	Field Studies: Fire Effects (w)
	Field Studies: Plantation Thinning (c)

Activity booklets for each grade level contain information and exercises.

College students use Institute facilities for technical instruction.

Grade 4 pupils explore tree growth through exercises with tree rings.



Learning by doing *is a key element of the school program.*

Science class studies become **real** *when moved to the outdoors.*

Pupils often get a chance to examine forestry machinery.

Facilities

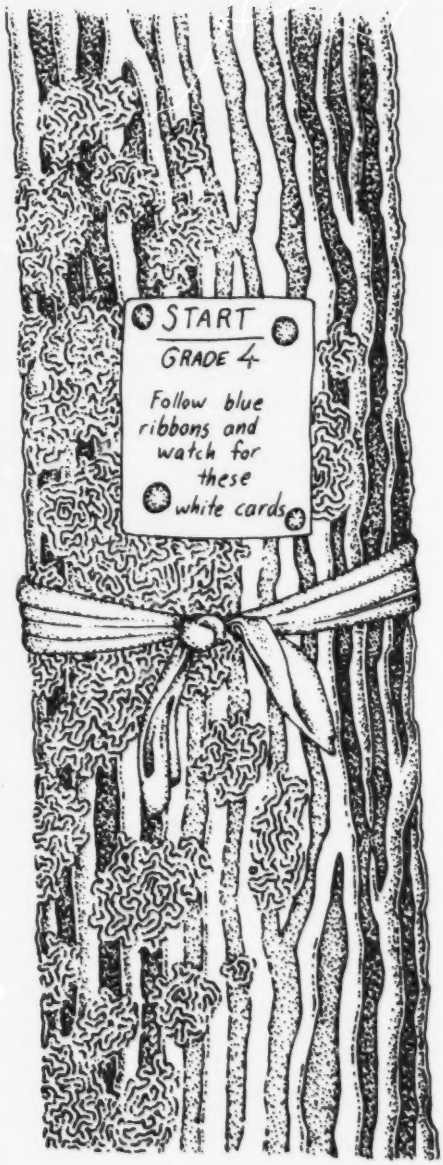
Apart from the forest stands of the Headquarters Silvicultural Area, the PREP uses several other Institute facilities, including the fire hall, auditorium, and weather station. Research plots and plantations, as well as the Montgomery Site Trail (soil and microclimate studies), provide a unique resource available to the education program. A lunchroom/classroom facility at Institute Headquarters also provides storage space for 90 pairs of snowshoes owned by the RCBE. A wide range of forestry equipment used in forest inventory, logging, tree climbing, and fire fighting is available for demonstration or, in appropriate cases, for use by the students (e.g. inventory).

The weather station unit explores the influences of forest cover on local climate.

Winter time exploration of the forest is more fun with snowshoes.

Operations

The Petawawa Resource Education Program is a day-use program operated from September through June. A single Institute staff member coordinates the program with users. The principals and teachers of every school in the RCBE area are informed of the programs and class visits to the Institute are scheduled through one of the school board employees. The year is divided into periods, with curriculum units assigned to each period, e.g. all classes participating in the winter woods walks visit during the same period. The complete schedule is then forwarded to the Institute staff member who will handle the class visits. This coordinator facilitates the visits by preparing back-up material, arranging audio-visual programs, locating trails, etc. If the subject material is beyond the knowledge or skill of the teacher involved the coordinator may conduct the visit himself or call on other Institute staff members to assist him. Occasionally the coordinator is invited to visit the classroom to discuss specific topics of interest, but this usually occurs through special arrangement between the teacher and the coordinator.



The program co-ordinator provides marked trails and other resource material.

Attendance

The optimum daily number of pupils handled by the school program is approximately 60, or two classes. No limits are set but the two class optimum provides a guideline for scheduling. After six years of operation the numbers seem to be leveling off at about 7 000 students per year. Exact figures have not been recorded but estimates are as follows:

77–78	15 000
78–79	10 000
79–80	8 000
80–81	7 000
81–82	7 500
82–83	7 000
83–84	6 000

Numbers have declined for several reasons. Those schools located in areas far from the Institute (Arnprior, Madawaska, etc.) were faced with trips which were excessively long and expensive. In addition, problems have been encountered in scheduling all-day or even half-day visits within the high school curricula.

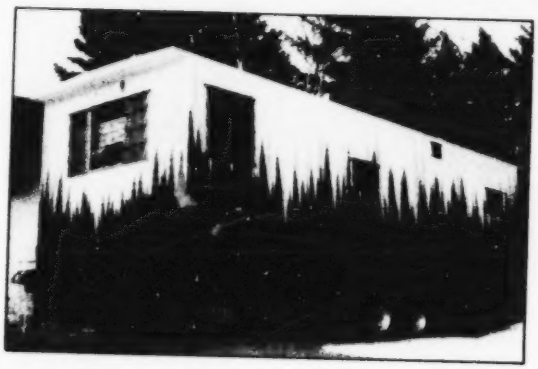
Eager students arrive for a day's activity in the bush.

Future Developments and Opportunities

The potential for the Forestry Interpretation Program has increased with the skills and experience of the staff connected with the program. New ideas and opportunities present themselves more frequently as the project attempts to improve its impact with upgraded programs and new media development.

A new exhibit is being planned for the recently constructed Visitor Centre building. This exhibit will explore the immediate need for intensified forest renewal in Canada. Under construction is a new mobile exhibit designed to discuss the importance of Canada's forest resource and the need for managing this resource within the limits that nature imposes on the forest ecosystem. Housed in a 24-foot trailer the exhibit will travel throughout eastern Ontario to parks, fairs, shopping centres, etc. with the aim of reaching the vacationing audience in a leisurely setting.

Potential new programs for future years include another mobile exhibit trailer, new trails for the Visitor Centre area, audio-visual productions, and wintertime interpretation. The theatre at the Visitor Centre and audio-visual capabilities built into the mobile centres will provide numerous opportunities for slide-tape productions on forestry topics. As well, an Institute slide show, on its programs and facilities, has been suggested. Audio-visual productions could also provide a vehicle for program promotion at shopping centres, conferences, and through mass media. With 65 kilometers of cross-country ski trails at the Institute and the frequent use of the Institute land by skiers, snowmobilers, snowshoers, etc. there exists a strong potential for a winter interpretation program. The Headquarters Silvicultural Area trail currently has tree labels and a few other signs explaining forest management procedures. This trail could be improved and others could provide for other forestry oriented themes. Visitor Centre use on selected weekends could provide additional forestry interpretation especially for the local population.



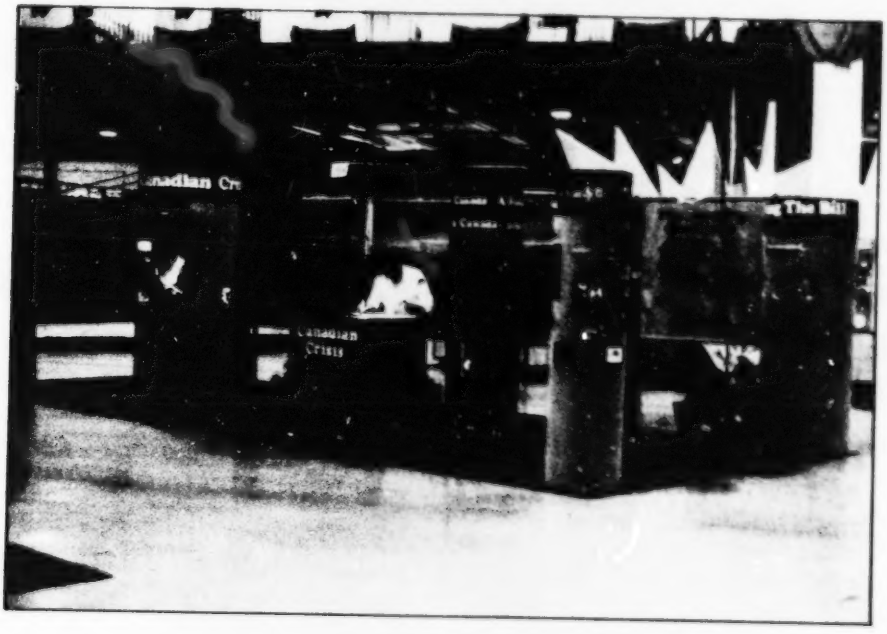
The Forestry Caravan, a mobile exhibit, will take the message of proper forest management to many communities.

Yearly visitor surveys conducted at the Centre provide a basis for research papers on public attitudes toward forestry as well as insight into the type of people visiting interpretive facilities. Past reports on Visitor Centre operations contain basic data of visitor characteristics but much more data remains to be analyzed on visitor attitudes. Recent surveys conducted during the summers of 1982 and 1983 addressed this concern. However, more potential exists for this type of work, possibly in cooperation with colleges and universities as projects for undergraduate or post-graduate studies or theses.

A potential winter interpretation program exists in the Institute's network of cross-country ski trails.

The experience gained through exhibit and trail development has led the project staff toward an area of great potential -- that of providing advice and services to outside agencies involved in forestry interpretation as well as within the Canadian Forestry Service (CFS). The development of an exhibit for CFS Headquarters and consultations with the Kortright Centre for Conservation are two recent projects that have reflected this potential. The project staff have frequently been approached by other agencies for advice on techniques used in both the Visitor Centre and Education programs. As well, presentations and discussions have taken place at numerous interpretation workshops and forestry conferences alike. A good reputation has been, and continues to be, developed. This will lead the program toward promotion of its expertise and techniques as well as providing a valuable service to other agencies involved in natural resource interpretation.

"Canadian Crisis: The Forestry Challenge", a Canadian Forestry Service exhibit, was designed and built at PNFI.



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